



NATURAL RESOURCES DEFENSE COUNCIL

*Feb 2, 2004*  
~~January 19, 2004~~

Dr. Warren R. Muir,  
Executive Director, Division on Earth and Life Studies, NRC  
500 Fifth Street, NW  
Washington, DC 20001

Dear Warren;

Thank you for having an informal meeting with us to hear out our concerns regarding NAS committee members with relationships to regulated industries. We appreciate your efforts to address this important issue. NRC's evaluations of conflicts of interest, serious bias, and lack of balance on many of its committees, including those evaluating perchlorate, fluoride, human testing of pesticides and other toxic agents, the Superfund cleanup of the Coeur d'Alene River Basin, and the Board on Radioactive Waste Management and its committees, are of serious concern to us.

For example, we have particular concerns regarding two members of the Committee to Assess the Health Implications of Perchlorate Ingestion (BEST-K-03-05-A) who have working relationships with Lockheed Martin, a firm with a lot at stake in the perchlorate deliberation.

Charles Capen

Charles Capen was a paid consultant to Lockheed Martin regarding perchlorate. There is evidence that this consulting relationship was in existence in 1998 and 1999, which includes payment made to Dr. Capen by TERA (Toxicology Excellence Risk Assessment), and then reimbursed by Lockheed Martin. In fact, Dr. Capen submitted a bill to TERA (Joan Dollarhide, Oct 6, 1997) for 14 hrs of work at \$150 per hour, for a total of \$2,100. TERA then submitted an invoice to Lockheed Martin (Carol Yuge, Oct 31, 1997) for the consultation fees of Dr. Capen (\$2,100 plus \$32 for photocopying fees of TERA). Emails exchanged between Dr. Capen and TERA demonstrate that this consulting relationship lasted until at least early 1999. Email from TERA (Joan Dollarhide) to Capen on January 29, 1999 with the subject heading, "Technical Workshop on Perchlorate Risk Issues" says, "Dr. Capen; here is the Federal Register Notice that has information on how to submit [sic] comments to the Peer Review Panel. A Fed Ex package with the EPA report is on its way to you. We will also include the mailing address for Research Triangle Institute. Thank you again for your help. Joan Dollarhide".

It is clear that as late as early 1999, Dr. Capen was a paid consultant to TERA and Lockheed Martin regarding perchlorate regulation. The magnitude of this financial relationship, and whether or not this relationship continues today is unknown to us. NRDC believes that this financial relationship constitutes a disqualifying conflict of interest under 5 U.S.C. App. 2 §15. Under current law and NRC policy, at a minimum: 1) this relationship should have been disclosed

by Dr. Capen to the NAS, and 2) this relationship should have been disclosed by the NAS publicly on its website biography of Capen<sup>1</sup> (it is not). If you find that this relationship was not disclosed by Dr. Capen to the NAS, this should result in dismissal of Dr. Capen from all current and future NAS committees.

*Richard Bull*

Richard Bull was a paid consultant to Lockheed Martin in toxic tort litigation regarding perchlorate and other chemical pollution in Redlands, California.<sup>2</sup> This litigation is currently ongoing, although Dr. Bull's current status as a consultant to Lockheed Martin is unknown to us. The defendant, Lockheed Martin Corp., retained Dr. Bull for his expertise on trichloroethylene, and he appeared as an expert for Lockheed during a lengthy deposition held in November 2002 and January 2003. While the central topic of the deposition was trichloroethylene, perchlorate pollution is a central concern of the litigation.

It is clear that less than one year ago, Dr. Bull was a paid consultant to Lockheed Martin in litigation that is currently ongoing, and that concerns perchlorate as a main element of liability. The magnitude of this financial relationship, and whether or not this relationship continues today is unknown to us. NRDC believes that current law and NRC policy therefore disqualifies Dr. Bull from sitting on the perchlorate panel under 5 U.S.C App. 2 §15. Under current law and NRC policy, at a minimum: 1) this relationship should have been disclosed by Dr. Bull to the NAS, and 2) this relationship should have been disclosed by the NAS publicly on its website biography of Bull<sup>3</sup> (it is not). Further, if you find that this relationship was not disclosed by Dr. Bull to the NAS, this should result in dismissal of Dr. Bull from all current and future NAS committees.

---

<sup>1</sup> **Committee Membership:** Date Posted: 10/27/2003  
<http://www4.nas.edu/webcr.nsf/CommitteeDisplay/BEST-K-03-05-A?OpenDocument>

“CHARLES CAPEN is distinguished university professor and former chairman (1981-2002) of the Department of Veterinary Biosciences at Ohio State University. His research interests include the effects of environmental pollutants on thyroid and ovarian function in rodents and secondary mechanisms of oncogenesis; the comparative aspects of endocrine and metabolic diseases; the gene transfer of sodium iodide symporter in prostate and mammary cancer; and humoral factors in cancer-associated hypercalcemia. Dr. Capen was elected to the Institute of Medicine in 1992 and is a diplomate of the American College of Veterinary Pathologists. He earned his D.V.M. from Washington State University and his Ph.D. from Ohio State University.”

<sup>2</sup> Superior Court of the State of California for the County of San Bernardino, West District – Rancho Cucamonga. Case No. RCV 31496, Volume 18, Pages 4,685-4,948. Deposition of Daniel T. Teitelbaum, M.D. November 19, 2002

<sup>3</sup> **Committee Membership:** Date Posted: 10/27/2003  
<http://www4.nas.edu/webcr.nsf/CommitteeDisplay/BEST-K-03-05-A?OpenDocument>

“RICHARD BULL is currently a consultant with MoBull Consulting and an adjunct professor of pharmacology, toxicology, and environmental science at the Washington State University. Dr. Bull's research interests include the toxicology of drinking-water disinfection by-products, the toxicology of halogenated solvents and their metabolites, and health risk assessments for hazardous waste and other substances. He is currently chair of the National Research Council (NRC) Subcommittee on Toxicological Risks to Deployed Military Personnel. He is also a former member of the NRC Subcommittee on Spacecraft Maximum Allowable Concentrations for Space Station Contaminants and was chair of the Committee on Copper in Drinking Water. Dr. Bull received his Ph.D. in pharmacology from the University of California, San Francisco.”

While we have no evidence on whether or not the relationship between Bull and Lockheed Martin is ongoing, we believe that based on numbers of hours of work, Bull is likely to have earned many thousands of dollars as a consultant to Lockheed Martin as recently as January 30, 2003. While we have no concrete evidence that this financial relationship continues today, clearly this financial relationship is at least very recent, within the last 12 months. We urge that you not write off certain relationships as “not current” to decide they are not relevant in cases as these. Such an extraordinarily narrow interpretation of ‘financial conflict’ would not be remotely credible to most scientists or citizens. And, while Bull’s expertise for Lockheed Martin was apparently limited to the trichloroethylene portion of the litigation, both chemicals are central to this litigation, and the litigation is currently ongoing. Surely it is evident that Bull’s relationship with his client, Lockheed Martin, is strengthened by work he may do to weaken perchlorate clean-up standards.

*The scientific credibility of the NAS is damaged by committees with real or perceived bias*

The mission of the NAS is to provide credible and independent scientific analysis and advice to government. The NAS cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Importantly, we are convinced that members with industry bias cannot be ‘balanced’ with government employees, whose freedom to voice opinion may be hamstrung by obligations to maintain consistency with government perspective. Similarly, academics are not often advocates for the public interest. In attempts to ‘balance’ industry representatives, it is appropriate to select scientists who are advocates of a public interest perspective. While there is substance to the argument that the public interest community has only a limited number of scientists able to serve on committees, we feel that the number of industry representatives should be limited to the number of public interest scientist, to maintain legally required ‘balance’. Moreover, we feel that committee membership should include only a very limited number of industry representatives, so that committees are largely composed of neutral scientists able to provide a fair and complete review of all relevant data or issues. If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate.

Even where scientists may not have a disqualifying conflict of interest, they may nevertheless harbor a strong industry bias. Congress has required that NAS determine that “committee membership is fairly balanced....” 5 U.S.C. App. §15(b)(1)(B). NAS has stated “it is essential that the work of committees...not be compromised by issues of bias and lack of objectivity. ...Questions of lack of objectivity and bias ordinarily relate to views states or positions taken that are largely intellectually motivated or that arise from the close identification or association of an individual with a particular point of view or the positions or perspectives of a particular group.”<sup>4</sup> Panelists who are or often have been employed by industry, or consultants to industry, are active participants in associations that have taken a position on the issue at hand, and others with strong industry ties, may seek to downplay the toxic effects of an agent on human health and well-being, or to overemphasize or focus solely upon the benefits of the agent, and may not be open to discussion of other alternatives. All NAS committees must be composed in order to ensure that this type of bias is publicly disclosed at a minimum, is eliminated if possible.

---

<sup>4</sup> NAS, “Policy on Committee Composition and Balance and Conflicts of Interest,” at 4 (2003)

We appreciate your consideration of the concerns raised in this letter, and hope that we hear back from you on these matters within the next several weeks.

Respectfully,



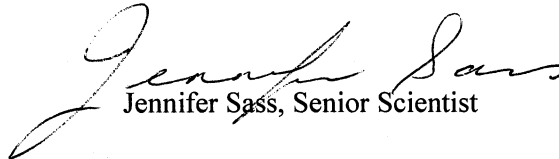
Linda Greer, Senior Scientist



Erik Olson, Senior Attorney



Tom Cochran, Senior Scientist



Jennifer Sass, Senior Scientist